<u>**IN THE CLAIMS**</u>:

A complete listing of the claims is set forth below:

1 - 46 **(Canceled)**

47.   **(Currently Amended)** A computer graphical user interface system comprising one or more memory units, the system comprising:

a database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data; and

a multi-dimensional graphical user interface coupled to the database and capable of user interaction to provide a multi-dimensional user interactive graph comprising:

a multi-dimensional axes data hierarchy including a top layer hierarchy associated with a first axis dimension, a top layer hierarchy associated with a second axis dimension, and a top layer hierarchy associated with a third axis dimension; ~~and~~

a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy; and

<u>a first wall graphical user interface grid associated with a mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy, the first wall graphical user interface grid perpendicular with the first axis dimension; and</u>

a multi-dimensional value hierarchy associated with each of the function values of the multi-dimensional axes data hierarchy.

48.   **(Previously Presented)** The computer graphical user interface system according to Claim 47, wherein the multi-dimensional axes data hierarchy further comprises:

a plurality of levels of hierarchies associated with the top layer hierarchy, and the unique bottom layer hierarchy associated with each of the plurality of levels of hierarchies.

49.   **(Canceled)**

50.   **(Previously Presented)** The computer graphical user interface system according to Claim 48, wherein the user is capable of filtering at least a portion of the plurality of levels of hierarchies and in response the filtered levels of hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered levels of hierarchies in a separate filtered window.

51.   **(Previously Presented)** The computer graphical user interface system according to Claim 50, wherein the multi-dimensional graphical user interface allows for a user navigation of the multi-dimensional axes data hierarchy by drilling into the top layer hierarchies associated with each of the axis dimensions.

52   **(Previously Presented)** The computer graphical user interface system according to Claim 47, wherein the multi-dimensional graphical user interface allows for each of the function values to be graphed over user selectable aggregations of user input data.

53   **(Previously Presented)** The computer graphical user interface system according to Claim 52 wherein each of the function values are hierarchically arranged numbers and the user is capable of filtering at least a portion of the multi-dimensional value hierarchies and in response the filtered value hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered value hierarchies in a separate filtered legend window.

54.   **(Previously Presented)** The computer graphical user interface system according to Claim 53, wherein each of the function values of the multi-dimensional value hierarchy provide for user interaction of complex mathematical combinations of the multi-dimensional axes data hierarchy selected from the group consisting of: summation; average; minimum; and maximum.

55.   **(Currently Amended)** Software for providing a computer graphical user interface, the software being embodied in a computer-readable storage medium and when executed operable to:

store hierarchically organized data associated with a multi-dimensional hierarchy of data in a database and display the multi-dimensional hierarchy of data to a user; and

provide a multi-dimensional graphical user interface coupled to the database and capable of user interaction to provide a multi-dimensional user interactive graph comprising:

a multi-dimensional axes data hierarchy including a top layer hierarchy associated with a first axis dimension, a top layer hierarchy associated with a second axis dimension, and a top layer hierarchy associated with a third axis dimension; ~~and~~

a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy; and

a first wall graphical user interface grid associated with a mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy, the first wall graphical user interface grid perpendicular with the first axis dimension; and

a multi-dimensional value hierarchy associated with each of the function values of the multi-dimensional axes data hierarchy.

56.   **(Previously Presented)** The software of Claim 55, wherein the multi-dimensional axes data hierarchy further comprises:

a plurality of levels of hierarchies associated with the top layer hierarchy, and the unique bottom layer hierarchy associated with each of the plurality of levels of hierarchies.

57.   **(Canceled)**

58.   **(Previously Presented)** The software of Claim 56, wherein the user is capable of filtering at least a portion of the plurality of levels of hierarchies and in response the filtered levels of hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered levels of hierarchies in a separate filtered window.

59.   **(Previously Presented)** The software of Claim 58, wherein the multi-dimensional graphical user interface allows for a user navigation of the multi-dimensional axes data hierarchy by drilling into the top layer hierarchies associated with each of the axis dimensions.

60.   **(Previously Presented)** The software of Claim 55, wherein the multi-dimensional graphical user interface allows for each of the function values to be graphed over user selectable aggregations of user input data.

61.   **(Previously Presented)** The software of Claim 60, wherein each of the function values are hierarchically arranged numbers and the user is capable of filtering at least a portion of the multi-dimensional value hierarchies and in response the filtered value hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered value hierarchies in a separate filtered legend window.

62.   **(Previously Presented)** The software of Claim 61, wherein each of the function values of the multi-dimensional value hierarchy provide for user interaction of complex mathematical combinations of the multi-dimensional axes data hierarchy selected from the group consisting of: summation; average; minimum; and maximum.

63. **(Currently Amended)** A method for providing a computer graphical user interface, comprising the steps of:

storing hierarchically organized data associated with a multi-dimensional hierarchy of data in a database; and

providing a multi-dimensional graphical user interface coupled to the database and capable of user interaction to provide a multi-dimensional user interactive graph comprising:

a multi-dimensional axes data hierarchy including a top layer hierarchy associated with a first axis dimension, a top layer hierarchy associated with a second axis dimension, and a top layer hierarchy associated with a third axis dimension; ~~and~~

a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy; and

a first wall graphical user interface grid associated with a mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy, the first wall graphical user interface grid perpendicular with the first axis dimension; and

a multi-dimensional value hierarchy associated with each of the function values of the multi-dimensional axes data hierarchy.

64. **(Previously Presented)** The method of Claim 63, wherein the multi-dimensional axes data hierarchy further comprises:

a plurality of levels of hierarchies associated with the top layer hierarchy and the unique bottom layer hierarchy associated with each of the plurality of levels of hierarchies.

65.   **(Previously Presented)** The method of Claim 64, further comprising the steps of:

filtering at least a portion of the plurality of levels of hierarchies and in response the filtered levels of hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered levels of hierarchies in a separate filtered window; and

navigating the multi-dimensional axes data hierarchy by drilling into the top layer hierarchies associated with each of the axis dimensions.

66.   **(Previously Presented)** The method of Claim 63, further comprising the steps of:

allowing each of the function values to be graphed over user selectable aggregations of user input data;

filtering at least a portion of the multi-dimensional value hierarchies and in response the filtered value hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered value hierarchies in a separate filtered legend window; and

providing for user interaction of complex mathematical combinations of the multi-dimensional axes data hierarchy.

67.   **(Canceled)**

68.   **(Currently Amended)** The computer graphical user interface system according to Claim ~~67~~, 47, wherein the multi-dimensional graphical user interface further comprises:

a second wall graphical user interface grid associated with the mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data ~~hierarchy.~~ hierarchy, the second wall graphical user interface grid perpendicular with the second axis dimension.

69.   **(Canceled)**

70.   **(Currently Amended)** The software of Claim ~~69,~~ <u>55,</u> wherein the multi-dimensional graphical user interface further comprises:

a second wall graphical user interface grid associated with the mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data ~~hierarchy.~~ <u>hierarchy, the second wall graphical user interface grid perpendicular with the second axis dimension.</u>

71.   **(Canceled)**.

72.   **(Currently Amended)** The method of Claim ~~71,~~ <u>63,</u> wherein the multi-dimensional graphical user interface further comprises:

a second wall graphical user interface grid associated with the mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data ~~hierarchy.~~ <u>hierarchy, the second wall graphical user interface grid perpendicular with the second axis dimension.</u>